

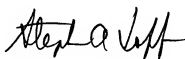
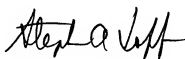
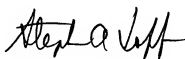
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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) S0170.0004/P004											
	Application Number 10/828,342-Conf. #5456	Filed April 21, 2004											
	First Named Inventor Anthony J. Magrath												
	Art Unit 2614	Examiner Kile O. Blair											
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table><tr><td><input type="checkbox"/> applicant /inventor.</td><td></td></tr><tr><td><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td><td>Signature</td></tr><tr><td><input checked="" type="checkbox"/> attorney or agent of record. Registration number 31,063</td><td>Stephen A. Soffen Typed or printed name</td></tr><tr><td><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____</td><td>(202) 420-4879 Telephone number</td></tr><tr><td></td><td>February 11, 2009 Date</td></tr></table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of 1 forms are submitted.</p>				<input type="checkbox"/> applicant /inventor.		<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	Signature	<input checked="" type="checkbox"/> attorney or agent of record. Registration number 31,063	Stephen A. Soffen Typed or printed name	<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____	(202) 420-4879 Telephone number		February 11, 2009 Date
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	February 11, 2009 Date												

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Anthony J. Magrath

Application No.: 10/828,342

Confirmation No.: 5456

Filed: April 21, 2004

Art Unit: 2614

For: SIGNAL PROCESSORS AND ASSOCIATED  
METHODS

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Examiner: K. O. Blair

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**INTRODUCTORY COMMENTS**

Applicant respectfully requests a review of the legal and factual bases for the rejections in the above-identified patent application. Pursuant to the guidelines set forth in the Official Gazette Notice of July 12, 2005 for the Pre-Appeal Brief Conference Program, favorable reconsideration of the subject application is respectfully requested in view of the following remarks:

In the final Office Action dated November 12, 2008 ("Final Rejection"), claims 1-9, 11-27, 29, 30, and 32-39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,928,307 to Lynn ("Lynn") in view of U.S. Patent No. 4,809,274 to Walker et al. ("Walker"). This rejection is respectfully traversed because: (i) Lynn fails to disclose or suggest all features of claims 1-9, 11-27, 29, 30, and 32-39; and (ii) Lynn does not rectify the deficiencies of Walker.

LYNN DOES NOT DISCLOSE OR SUGGEST  
THE FEATURES OF THE CLAIMED INVENTION

Lynn fails to disclose or suggest the subject matter of independent claims 1 and 37. Lynn does not disclose or suggest a gain determining stage for determining a gain signal to be applied to amplify a digital audio signal where the gain determining stage includes an “input for receiving a parameter of said digital audio signal; an adjuster for adjusting said parameter dependent on a received volume control signal; and a gain selector for applying a variable gain function to said volume control signal in order to generate a gain signal for applying to the digital audio signal, wherein said gain function is dependent on said adjusted parameter,” as recited by claim 1.

FIG. 2 of the present application is illustrative of the features recited by claim 1 and shows a open-loop gain determining stage that evaluates at least two inputs – a parameter of a digital audio signal (e.g.,  $V_{in}$ ) and a volume control signal (e.g.,  $I_{G_s}$ ) – to determine a variable gain (e.g.,  $K$ ) to be applied by an amplifier to generate an output signal. However, this particular configuration is an example only and should not be not interpreted as limiting the scope of the claims.

Lynn, by contrast and with reference to FIG. 2, discloses a closed-loop feedback system in which the output 20 of an amplifier 18 is compared to a threshold. If the output exceeds a predetermined threshold for a sufficient period of time (e.g., 80 ms), a control voltage 32 is reduced by about 10 dB. Lynn, col. 4, lines 25-45. This has the effect of limiting the output 20 to a “safe and comfortable” listening level. Lynn does not teach or suggest selecting a gain based upon an input and a volume control signal, as recited in claim 1. Rather, Lynn simply monitors an output level 20 and reduces a control voltage 32 applied to a pre-amplifier 14 if the output level 20 exceeds a predetermined threshold for a long enough period of time.

In the Final Rejection, the Examiner asserts that output 28 of the comparator 24 of Lynn corresponds to the parameter of said digital audio signal as recited in claim 1. Final Rejection, page 2. Applicant does not understand how the output of a comparator is a parameter of a digital signal.

The comparator 24 of Lynn generates trigger pulses when the input signal is higher than a threshold. Lynn, col. 4, lines 52-55. A trigger pulse is only an indication of a threshold being met -- it is not a parameter that defines a characteristic of a signal. Claim 1 recites an “input for receiving a parameter of said digital audio signal,” and Lynn fails to disclose or suggest this feature.

The Examiner further asserts that the “adjuster for adjusting said parameter,” as recited in claim 1, is met by the pre-amplifier 14 and the “received volume control signal,” as recited by claim 1, is met by the control voltage 32. Final Rejection, pg. 2. Assuming that the parameter of the digital signal as recited in claim 1 corresponds to the output 28 of the comparator 24 as asserted by the Examiner in the Final Rejection (which Applicant does not concede), then the pre-amplifier does not adjust the output of the comparator. The output of the comparator 24 of Lynn is sent to the attack/decay timer 30, and the timer 30 then sends a control voltage 32 to control the gain of the pre-amp 14. Lynn, col. 4, lines 20-25. Claim 1 recites an “adjuster for adjusting said parameter dependent on a received volume control signal,” and Lynn fails to disclose or suggest this feature.

As noted in the Final Rejection and again with reference to FIG. 2 of Lynn, the Examiner equates the claimed “adjuster” to the pre-amplifier 14 (a.k.a., the “variable gain amplifier”) and the “volume control signal” to the control voltage 12, which controls the pre-amplifier 14. Final Rejection, page 2. The Examiner also equates the claimed “gain selector” to the pre-amplifier 14. Final Rejection, pages 2-3. In other words, the Examiner equates Lynn’s pre-amplifier 14 to both the claimed “adjuster” and the claimed “gain selector”. Applicant respectfully submits that equating the pre-amplifier 14 to the “gain selector” recited in claim 1 is improper. The pre-amplifier 14 does not “select” anything. According to Lynn, the pre-amplifier 14 is merely a conventional floating differential pre-amplifier. Lynn, col. 4, lines 6-7. As such, the pre-amplifier 14 adjusts an input 12 based on a control voltage 32. This is not a “selection” in any reasonable sense of the word.

Moreover, the pre-amplifier 14 of Lynn does not “apply [] a variable gain function to said volume control signal,” as recited in claim 1. Rather, the pre-amplifier 14 of Lynn applies a gain (i.e., the control voltage 32) to the input 12. According to Lynn, the input 12 is “representative

of the signal received by the headset over the telephone line....” Lynn, col. 4, lines 6-7. A signal output to a telephone headset, implicitly for conversion to sound waves to be heard by the telephone user, is not a volume control signal. Thus, Lynn fails to disclose or suggest the “volume control signal” and use thereof as recited in claim 1.

Furthermore, the pre-amplifier 14 of Lynn does not “generate a gain signal for applying to the digital audio signal,” as recited in claim 1. (Although Lynn operates in the analog domain, the input 12 of Lynn is treated as equivalent to a digital audio signal for purposes of this discussion only.) Rather, the pre-amplifier 14 manipulates the input signal 12 itself by amplifying it based on the control voltage 32. Manipulating a first signal directly, as in Lynn, is not the same as generating a second signal to be applied to the first signal, as claimed. Thus, Lynn fails to disclose or suggest a “gain selector for applying a variable gain function to said volume control signal in order to generate a gain signal for applying to the digital audio signal,” as recited in claim 1.

For all of the above reasons, Lynn fails to disclose or suggest all the features of claim 1. Independent claim 37 recites features similar to those recited in claim 1 and is therefore distinguishable over Lynn for the same reasons. Claims 2-9, 11-24, 29, 30, and 32-36 depend from claims 1 and 37 and as such are distinguishable over Lynn for the same reasons discussed above.

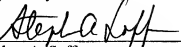
#### WALKER DOES NOT RECTIFY THE DEFICIENCIES IN LYNN

As explained above, Lynn does not disclose or suggest all the features of claims 1-9, 11-27, 29, 30, and 32-39. Walker is cited for teaching the use of a digital audio signal as recited in the claims. Final Rejection, page 3. However, Walker does not rectify the deficiencies in Lynn discussed above. Accordingly, the rejection of claims 1-9, 11-27, 29, 30, and 32-39 under 35 U.S.C. § 103 as unpatentable over Lynn in view of Walker is improper and should be withdrawn.

Allowance of all pending claims is solicited.

Dated: February 11, 2009

Respectfully submitted,

By 

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